

Patent Abstracts of Japan

PUBLICATION NUMBER : 55042140
 PUBLICATION DATE : 25-03-80

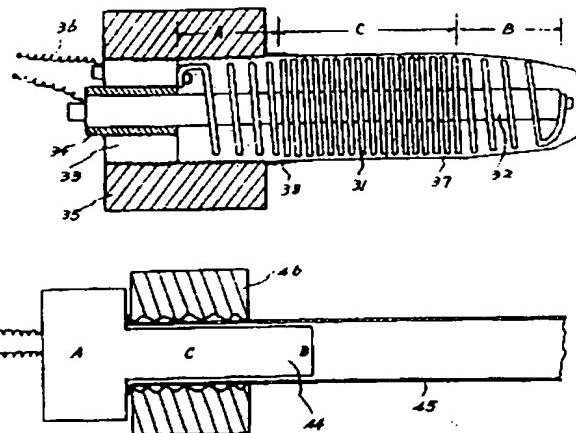
APPLICATION DATE : 18-09-78
 APPLICATION NUMBER : 53114932

APPLICANT : INOUE JAPAX RES INC;

INVENTOR : TAKAHASHI YOSHIO;

INT.CL. : B21D 26/14 B21D 39/08 // H01F 5/00

TITLE : COIL FOR ELECTROMAGNETIC FORMING



ABSTRACT : PURPOSE: To obtain a coil free from deformation, press-fitting and breakage, by winding the both end parts of tubular coil more coarsely than the central part, and lessening the electromagnetic force acting between wires at both end parts.

CONSTITUTION: The central part C of a coil 3 corresponds to the pipe expanding part, and is made in a large diameter so that a sufficient electromagnetic force may be generated and exerted and that it may contact with the body being formed closely and tightly. The both end parts A, B which are not to be formed are wound coarsely and in a smaller diameter as going away from the central part, so that the effect of the magnetic field generated is reduced. These coil ends are connected to a power supply ring 33 which is secured by means of core bar for power supply 32 and insulating material 34. An insulating bush 35 is inserted until hitting against a pipe to be processed 45 which is set in a mold or base material 46, and the part C of the coil is positioned in the forming processing part of the pipe. Impact current due to discharge of capacitor is supplied to the coil 44 to expand the pipe 45, so as to press-fit and form to the mold 46. By this impact current, the coil end parts A, B are stretched to the central part, but the force of such stretching is lessened, so that deformation and other defects may be prevented.

COPYRIGHT: (C)1980,JPO&Japio